

Claims:

1. A method of manufacturing a tubing, or casing to be used in the production of sausages, which tubing comprises a paper base material of mainly long-fibred manila hemp, having an air-dry weight of no more than 15g/m^2 which manila hemp paper is wet-strengthened by resin(s) and/or viscose, forming the wet-strengthened paper into tubing, impregnating said tubing by viscose which is presented to the outside surface only of the said tubing by means of an annular gap of a single die, whilst the inner surface of the said tubing is temporarily supported by support means, and then passing the tube through one or more acid and salt baths so as to coagulate the viscose and thereby regenerate the viscose into cellulose in such a manner that the fibres of the paper are embedded and bonded with the regenerated cellulose, finally plasticizing the tubing.

2. A method as claimed in claim 1 characterized in that the paper used is wet-strengthened by resin(s) of a lower basis weight than paper wet-strengthened by viscose alone or viscose used in conjunction with small amounts of resin(s) in order to achieve elasticity properties substantially similar to one another.

2a The method as claimed in claim 2 characterized in that the weight of the resin(s)-bonded paper is reduced about 1 to 4 g/m^2 , preferably 2-3 g/m^2 in comparison with paper wet-strengthened by viscose alone or viscose plus small amounts of resin(s), in order to obtain the elasticity properties substantially similar to one another.

3. A method as claimed in claim 1, to impregnate continuously a paper substrate formed into a tubing, comprising the steps of feeding the viscose under pressure through the lips of a die directly onto the one surface of the tubing and through the paper base or substrate having a weight of 15 g/m^2 or less, supporting the paper on its under side during transit across

these lips by a metal ring or cylinder the gap between ring and die allowing the paper to pass unimpeded, impregnating the paper substrate by continuing the passage of the tube between die and supporting ring for a predetermined distance within fixed gap dimensions.

4. A method as claimed in claim 1, characterized in that the impregnating die is situated outside of the tube with the support inside the tube.

5. A method as claimed in claim 1 and/or 2, characterized in that the paper substrate is wet-strengthened using resins, which is impregnated by viscose in the impregnation stage, while the paper weight is no greater than 13 g/m² and preferably 10 to 12 g/m².

6. A method as claimed in any one of the preceding claims characterized in that the die has an annular opening against the tube, the distance between the faces of the lips and the surface of the supporting ring being 0,5 to 0,7 mm, preferably 0,55 to 0,60 mm., that is the passage through which the substrate paper travels,

7. A method as claimed in any one of the preceding claims characterized in that the length of the supporting ring is between 10 and 25 mm, extending to a distance horizontal (\pm 1-2 mm) with the lower end of the lower lip of the die.

8. A method as claimed in any one of the preceding claims characterized in that the annular opening of the die is located in the lower part of the die and therefore the viscose is fed in the lower part of the die.

9. A method as claimed in any one of the preceding claims characterized in that the paper lead-in distance between paper supporting ring, and the upper end of the upper lip of the viscose die, to the point of viscose issue at the lower end of the upper lip, is kept between 10 and 5 mm, whilst the distance

on the paper lead-out side, between the point of viscose issue and the lower end of the lower lip, is kept between 10 and 2 mm.

10. A method to continuously impregnate a paper substrate formed into the shape of a tube, comprising the steps of feeding the viscose under pressure through the lips of the die directly onto the one surface and through the paper base or substrate having a weight of 15 g/m² or less, supporting the paper substrate from the other side during transit across these lips by a metal ring or cylinder, the gap between ring and die allowing the paper to pass unimpeded, and continuing the impregnation of the paper substrate by continuing the passage of the tube between die and supporting ring for a predetermined distance within fixed gap dimensions.

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11. A tubing manufactured as claimed in any of the above claims the tubing comprises mainly viscose and wet-strengthened by resins and/or viscose having a basis weight of no more than 15g/m².

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12. A tubing as claimed in claim 15, characterized in that the basis weight is of 10 to 13 g/m².

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